

Please amend claims 2-7, 9-10, 13, 15, 19, 21, 23-24, 28-29, 32, and 34 to read as follows:

--2 (amended). The method of claim 1, wherein the conditions to denature the genomic DNA comprise basic conditions or a temperature of at least 65°C.

Q1 3 (amended). The method of claim 2, wherein the conditions to denature the genomic DNA comprise basic conditions in which a base is present.

4 (amended). The method of claim 1, wherein the butanol is n-butanol, 2-methylpropanol, or butan-2-ol.

5 (amended). The method of claim 1, wherein the chaotrope is selected from the group consisting of guanidine hydrochloride, guanidine thiocyanate, sodium perchlorate, and mixtures thereof.

6 (amended). The method of claim 1, wherein the chaotrope comprises guanidine hydrochloride.

7 (amended). The method of claim 3, wherein the base comprises a hydroxide.

Q2 9 (amended). The method of claim 3, wherein the butanol, the chaotrope, the base and the water are combined to form an extraction mixture, and extraction step (i) comprises mixing the extraction mixture with the plasmid DNA containing material.

10 (amended). The method of claim 1, wherein the amount of butanol is in the range from 20 to 70% based on the volume of the combination of butanol, chaotrope and water.

a3 13 (amended). The method of claim 1, wherein the chaotrope is present at a concentration of from 0.7M to 1.2M based on the combination of butanol, chaotrope and water.

a4 15 (amended). The method of claim 1, wherein the recovery step (ii) comprises mixing the DNA containing butanol phase with a precipitating agent that can precipitate the plasmid DNA from the butanol, and separating the precipitated plasmid DNA from the butanol.

a5 19 (amended). The method of claim 15, wherein the precipitating agent further comprises an acetate salt.

a6 21 (amended). The method of claim 1, which further comprises a step of separating the organic and aqueous phases of step (i) prior to recovering the plasmid DNA.

a7 23 (amended). The method of claim 1, wherein the DNA containing material comprises a lysed or unlysed bacterial culture.

24 (amended). An extraction mixture for selectively extracting plasmid DNA from a DNA containing material which comprises plasmid DNA and genomic DNA, which extraction mixture comprises butanol, a chaotrope, and water.

a8 28 (amended). The extraction mixture of claim 24, wherein the butanol is n-butanol, 2-methylpropanol, or butan-2-ol.

29 (amended). The extraction mixture of claim 24, wherein the butanol constitutes from 20 to 70% based on the volume of the extraction mixture.

a9 32 (amended). The extraction mixture of claim 24, wherein the chaotrope is selected from the group consisting of guanidine hydrochloride, guanidine thiocyanate, sodium perchlorate, and mixtures thereof.

Q10 34 (amended). The extraction mixture of claim 24, wherein the concentration of chaotrope in the extraction mixture is from 0.7M to 1.2M.--

Please add the following new claims:

36 (new). The method of claim 1, wherein the conditions of extracting step (i) further comprise forming an aqueous phase and a butanol phase.

Q11 37 (new). The method of claim 36, wherein the genomic DNA is substantially in the aqueous phase and the plasmid DNA is substantially in the butanol phase.

38 (new). The method of claim 1, wherein the butanol, the chaotrope, and the water are combined to form an extraction mixture, and extraction step (i) comprises mixing the extraction mixture with the plasmid DNA containing material.--

REMARKS

I. Support for the Amendments

Support for claims 2-7, 9-10, 13, 15, 19, 21, 23-24, 28-29, 32, and 34 as amended and for new claims 36-38 can be found in the original specification, e.g., from pages 2-4, in the Examples and in the original and amended claims. Detailed support for amended claims 2-7, 10, 13, 28-29, 32, and 34 can be found on pages 6-7 of the specification. Detailed support for amended claims 15 and 19 can be found on page 8 of the specification. Detailed support for new claims 36-37 can be found on pages 2-4 of the specification. Detailed support for new claim 38 can be found on pages 4-5 of the specification.